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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/27/2004

Stig Lindemann

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EXAMINER

MATTIS, JASON E

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

06/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/519,384	Applicant(s) LINDEMANN, STIG	
	Examiner JASON E. MATTIS	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-18 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Request for Continued Examination filed 4/9/09. Claims 1-16 and 29 have been canceled. Claims 16-28 and 30 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostadinov (U.S. Patent 7,032,045 B2) in view of Gothe et al. (U.S. Patent 6,049,577).

With respect to claim 16, 26, and 30, Kostadinov discloses an adapter including a storage medium having instructions stored thereon for performing a method of transmitting and receiving control data from a field bus network where data is being exchanged according to a specific field bus protocol **(See the abstract, column 5 lines 1-20, and Figure 2 of Kostadinov for reference to an actuator 120, which is a field bus adapter, executing software instructions stored a memory to perform a method of transmitting and receiving control data according to a field bus**

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communications protocol). Kostadinov also discloses a transmitter transmitting data to the field bus network and a receiver receiving data from the field bus network **(See column 5 lines 1-25 and Figure 2 of Kostadinov for reference to the actuator 120 including a communication interface that comprises a transmitter and receiver to both transmit and receive signals over the bus 110)**. Kostadinov further discloses a protocol detector detecting a field bus protocol between a number of predefined field bus protocols and setting up the receiver and the transmitter to communicate according to the detected field bus protocol **(See column 7 lines 36-55 of Kostadinov for reference to the actuator using processor 210 to identify which field bus communications protocol of a set of communications protocols known to the actuator 120 is being used to encode signals on the bus 110)**. Kostadinov also discloses a means for receiving data comprised of a number of fields from the field bus, a means for determining if the received data complies with predefined characteristics stored in a database with the characteristics uniquely identifying data of only one of the number of predefined field bus protocols, and a means for setting up the receiver and transmitter to communicate according to the one protocol if the received data complies with the characteristics **(See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov for reference to receiving a bus signal using one of Fieldbus, Profibus, FoxCom, or HART protocols which are well known to comprise a number of fields, in step 501, for reference to determining if the bus signal complies with a predefined format and length stored in a table with the format and length uniquely identifying only one of the predefined field bus protocols in**

steps 505, 510, and 515, and for reference to setting up the actuator 120 to process signals according to the identified protocol if the bus signal complies with the format and length in step 520). While Kostadinov does disclose repeating detecting of field bus protocols until a unique field bus protocol is detected (See column 8 lines 41-56 and Figure 5A of Kostadinov for reference to repeating protocol detection if a unique protocol has not been identified in step 517), Kostadinov does not specifically disclose repeating protocol detection as long as characteristics exist that uniquely identify a protocol and periodically performing field bus detection at predefined intervals.

With respect to claims 16, 26, and 30, Gothe et al., in the field of communications, discloses periodically repeating protocol detection as long as characteristics exist that uniquely identify a protocol **(See column 1 lines 36-52 and Figure 2 of Gothe et al. for reference to a protocol detector continuously detecting a protocol of a received signal as long as a header sync pattern, which is a characteristic that uniquely identifies a protocol exists, meaning protocol detection is repeated periodically at the rate of the received signal).** Periodically repeating protocol detection as long as characteristics exist that uniquely identify a protocol has the advantage of allowing a detected protocol to be constantly updated such that multiple used protocols may be detected within a received signal.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Gothe et al., to combine periodically repeating protocol detection as long as characteristics exist that uniquely identify a

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protocol, as suggested by Gothe et al., with the system and method of Kostadinov, with the motivation being to allow a detected protocol to be constantly updated such that multiple used protocols may be detected within a received signal.

With respect to claims 17 and 27, Kostadinov discloses the adapter detecting two predefined field bus protocols with the protocol detector comprising a means for receiving data from the field bus, a means for determining if the data complies with predefined characteristics stored in a database uniquely identifying data of a first of the two predefined field bus protocol, a means for setting up the receiver and the transmitter for communicating according to the first predefined field bus protocol if the data complies with the characteristics, and a means for setting up the receiver and the transmitter for communicating according to a second predefined field bus protocol if the data does not comply with the characteristics **(See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov for reference to detecting both a Foundation Fieldbus protocol and a Profibus protocol by receiving a bus signal in step 501, for reference to determining if the bus signal complies with a predefined format and length stored in a table with the format and length uniquely identifying a first one of the predefined field bus protocols in steps 505, 510, and 515, for reference to setting up the actuator 120 to process signals according to the first protocol if the bus signal complies with the format an length in step 520, and for reference to setting up the actuator 120 to process signals according to the second protocol if the bus signal does not comply with the format and length of the first protocol in step 520).**

With respect to claim 18, Kostadinov discloses the characteristics uniquely identifying frames of one of the predefined field bus protocols (**See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the Foundation Fieldbus protocol and the Profibus protocol, which both send data in data frames comprising a number of fields and for reference to using the characteristics of received data frames to identify a field bus protocol**).

With respect to claim 19, Kostadinov discloses the characteristics comprising the content of specific fields of the data frame (**See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using specific field contents of received Foundation Fieldbus protocol frames and Profibus protocol frames to identify the protocol of the received frames**).

With respect to claim 20, Kostadinov discloses the characteristics comprising the length of a data frame (**See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the length of a received signal to identify the protocol of the signal**).

With respect to claim 21, Kostadinov discloses detecting the protocol based on more than one frame (**See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using multiple received bus signals to detect a protocol if the protocol cannot be identified based on the first received bus signal**).

With respect to claim 22, Kostadinov discloses that the first protocol is Profibus and the second field bus protocol is Foundation Fieldbus (**See column 8 lines 6-56 and**

Figure 5A of Kostadinov for reference to for reference to identifying both Profibus and Foundation Fieldbus protocols).

With respect to claim 23, Kostadinov discloses using the content of the first field in the data frame and the length of the data frame to uniquely identify a Foundation Fieldbus protocol **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the data of a first byte of a data frame and the length of the data frame to identify a Foundation Fieldbus protocol).**

With respect to claim 24, Kostadinov discloses the control data being a value representing a measured physical value **(See column 4 lines 7-16 and column 5 lines 21-25 of Kostadinov for reference to the sending and receiving signals representing measured physical values, for example, a measured temperature, pressure, flow rate, etc.).**

With respect to claim 25, Kostadinov discloses the adapter comprising a means for measuring the physical value **(See column 4 lines 7-16 and column 5 lines 21-25 of Kostadinov for reference to the actuator 120 including a sensor 230 to measure the physical value).**

With respect to claim 28, Kostadinov discloses performing the step of detecting and setting up only in an initialization phase before transmitting and receiving control data via the field bus network **(See column 10 line 57 to column 11 line 11 and Figure 6 of Kostadinov for reference to only performing protocol detection as an initialization procedure for the actuator 120).**

Response to Arguments

4. Applicant's arguments with respect to claims 16-28 and 30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2416

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